

## ABSTRACT

A synchronous rectifier with dead time adjusting function is used in fly-back power supplies for adjusting dead time of switches. The synchronous rectifier has a rectifying circuit connected to a secondary side terminal of a 5 transformer and outputting a positive half-cycle voltage, a charging circuit connected to the rectifying circuit for producing a first charging voltage and a second charging voltage, a regulated power circuit connected to the charging circuit and producing a reference voltage, a trigger circuit connected to the rectifying circuit and the charging circuit for generating a dead time adjusting 10 comparing signal, a comparing circuit connected to the regulated circuit, the charging circuit and the trigger circuit for producing a dead time adjusting signal, and a logic circuit connected to the comparing circuit and the rectifying circuit for outputting a driving signal for controlling on/off states of a first electric switch.

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